

# EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PH NL 000249W0	MAIL DOSSIER
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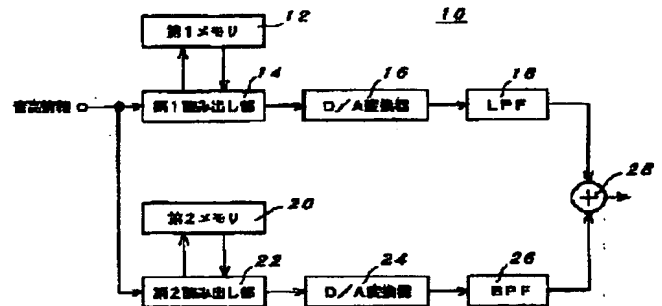
APPLICATION DATE : 27-10-94  
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APPLICANT : ROLAND CORP;

INVENTOR : ASAKAWA SHINJI;

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TITLE : MUSICAL SOUND SIGNAL  
SYNTHESIZING DEVICE



ABSTRACT : PURPOSE: To provide a musical sound synthesizing device which can reinforce a musical sound signal of a low-frequency component at low cost.

CONSTITUTION: This synthesizing device is provided with a normal sampling system musical sound generation path (1st memory 12, 1st read part 14, D/A converter 16, and LPF 18) which generates a musical sound lower than a frequency of 'sampling frequency  $f_s/2$ ', i.e. Nyquist frequency and a musical sound generation path (2nd memory 20, 2nd read part 22, D/A converter 24, and BPF 26) which can reproduce higher harmonics above the Nyquist frequency; and signals generated by those two musical sound generation paths are added by an adder 28 and outputted, and the higher harmonics above the Nyquist frequency are reproduced to compensate low frequency components.

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